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**UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF NEW YORK**

PETERSEN ENERGÍA INVERSORA, S.A.U. and
PETERSEN ENERGÍA, S.A.U.,

Plaintiffs,

-against-

ARGENTINE REPUBLIC and YPF S.A.,

Defendants.

ETON PARK CAPITAL MANAGEMENT, L.P.,
ETON PARK MASTER FUND, LTD., and
ETON PARK FUND, L.P.,

Plaintiffs,

-against-

ARGENTINE REPUBLIC and YPF S.A.,

Defendants.

Case Nos.:

1:15-cv-02739-LAP

1:16-cv-08569-LAP

Declaration of Charles W. Calomiris

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I. QUALIFICATIONS

1. I am the Henry Kaufman Professor of Financial Institutions Emeritus at Columbia Business School, and at Columbia University's School of International and Public Affairs. I am also a Research Associate at the National Bureau of Economic Research. I have served as the Academic Director of Columbia Business School's Chazen Institute on International Business and as the Academic Director of Columbia Business School's Program on Financial Studies. I have also been a professor or visiting professor at many other universities or colleges, including Stanford University, the University of Pennsylvania, Northwestern University, the University of Illinois, Claremont McKenna College, the Getulio Vargas Foundation, and the University of Vienna.

2. I have taught many courses at Columbia University and other top universities around the world, including courses on emerging market countries' financial systems and investments, international banking and finance, financial innovation, corporate finance, bank regulation, and monetary economics. I have also been a frequent executive education instructor for the Inter-American Development Bank Program on Emerging Market Finance, as well as for various World Bank and International Monetary Fund ("IMF") courses, especially those related to emerging market finance.

3. In 2020-2021, I held the position of Senior Deputy Comptroller of the Currency for Economics and Chief Economist at the U.S. Office of the Comptroller of the Currency.

4. I serve or have served on numerous policy-related committees or commissions, including the Advisory Scientific Committee of the European Systemic Risk Board, the U.S. Congress's International Financial Institution Advisory Commission, the Shadow Open Market Committee, the Financial Economists Roundtable, the Shadow Financial Regulatory Committee, and the Federal Reserve Centennial Advisory Committee.

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5. I have served as a consultant to numerous policymaking authorities, including the World Bank mission on the Argentine financial sector; the central banks and bank regulatory authorities of Argentina, Brazil, Chile, Colombia, El Salvador, and Mexico; most of the U.S. Federal Reserve Banks; and the Bank of England (where I was a Houbton-Norman fellow). I advised the IMF as a visiting economist and senior policy adviser on systemic risk and macroprudential regulation in 2013-2014.

6. I have published hundreds of articles and books, including articles in top academic journals and books published by top academic publishers. My publications cover a wide range of topics in finance, economics, and banking, including numerous articles and books related to banking and monetary policy in Latin America, and in Argentina specifically.¹ I have received many awards and grants related to my research. For example, I co-authored the book, *Fragile by Design*, which received the American Publishers Award for best book in Business, Finance and Management, and was named among the best books of 2014 by the *Financial Times*, *The Times Higher Education Supplement*, and *Bloomberg Businessweek*. I am also a frequent speaker at university seminars and conferences.

7. For five years I served as managing editor of *Journal of Financial Intermediation*, a peer-reviewed journal publishing research on banking, corporate finance, financial regulation, and credit markets, among other topics. I currently serve or have served on numerous editorial boards, including for *Explorations in Economic History*, *Journal of Economic History*, *Journal*

¹ Examples of Argentina-related articles include: "Argentina: Financial Sector Review," *The World Bank*, September 1998 (with G. Caprio, R. Cull, J. Gutierrez, P. Levy, M. Miller, D. Vittas, and S. Schmukler); "Devaluation with Contract Redenomination in Argentina," *Annals of Finance* 3, January 2007, 155-192; "Lessons from Argentina and Brazil" (2003) *Cato Journal*, 23 (Spring/Summer), 33-46 (translated as "Lecciones de la Argentina y Brasil," in *Crisis Financieras Internacionales: Qué Rol le Corresponde al Gobierno?* (2003) edited by Daniel Artana and James A. Dorn, Cato Institute, 33-46); "The Fastest, Fairest Way Out of the Argentine Debt Crisis," *Wall Street Journal*, November 9, 2001.

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of Applied Corporate Finance, Journal of Financial Economic Policy, International Journal of Banking, Accounting and Finance, Journal of Economics and Business, and Journal of Financial Services Research. I often am asked to serve as a referee for articles submitted to peer-reviewed journals, including all of the top journals in economics and finance.

8. In the past, I frequently have served as an expert witness on banking, corporate finance and international finance issues, including on many cases related specifically to Argentina. I have also testified before numerous U.S. Congressional Committees on matters related to banking and international finance, including to the Senate Foreign Relations Committee on matters related to Argentina. I am also familiar with practical considerations related to the use of collateral in securing debts. For nearly a decade, I served as Chairman of the Board of a savings bank, and as the Chairman of its credit committee, where I set terms for loans, including collateral.

9. I received a Bachelor of Arts in Economics from Yale University, Magna Cum Laude, and a Ph.D. in Economics from Stanford University. I also was awarded an Honorary Doctoral Degree from the University of Basel.

10. I am being compensated for my work in this case at my regular hourly rate of \$1,500. I was assisted in preparing this declaration by staff of Compass Lexecon, who are also being compensated at their regular hourly rates. Neither my compensation nor that of Compass Lexecon is contingent upon the outcome of this case. I reserve the right to update my opinions if additional relevant information becomes available.

CONFIDENTIAL**II. INTRODUCTION AND SUMMARY OF CONCLUSIONS**

11. On October 6, 2023, counsel for Argentina (“Argentina” or the “Republic”) filed a letter in *Petersen Energía Inversora S.A.U. v. Argentine Republic and YPF S.A.*, No. 15 Civ. 2739 (LAP) (“Petersen”), and *Eton Park Capital Mgmt. et al. v. Argentine Republic and YPF S.A.*, No. 16 Civ. 8569 (LAP) (“Eton Park”) (“Stay Application”), asserting there are legal, economic, and social barriers that appear to exist in 2023, which prevent Argentina from securing a bond or making a payment on the \$16.1 billion judgment. Argentina argues that it cannot secure a bond or pay the \$16.1 billion judgment in 2023 because this payment has not been approved by the Argentine government in the 2023 budget.² It also argues that “the size of the \$16.1 billion judgment or beginning payment on the judgment is a practical impossibility given the Republic’s current financial circumstances.”³ Moreover, Argentina argues posting a bond or making a payment on the judgment “would impose serious and irreversible harm on an Argentine population already suffering from high inflation and the adverse economic consequences of a severe and unprecedented drought.”⁴

12. On October 26, 2023, counsel for Argentina further filed a motion for a stay of enforcement of judgment pending appeal without bond, requesting to waive the bond requirement for appeal or grant a temporary stay.⁵ In this motion, Argentina argues that “it would be impossible for the Republic to immediately pay or bond the judgment in this case, which represents almost 20% of its budget for 2023,”⁶ and that “Plaintiffs’ enforcement efforts will

² Sullivan & Cromwell October 6, 2023 letter, at 1-2.

³ Sullivan & Cromwell October 6, 2023 letter, at 2.

⁴ Sullivan & Cromwell October 6, 2023 letter, at 2.

⁵ Argentina’s Memorandum of Law in Support of Motion for a Stay of Enforcement of Judgment Pending Appeal Without Bond, October 26, 2023 (“Argentina’s Stay Motion”).

⁶ Argentina’s Stay Motion, at 1.

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directly prejudice ‘existing creditors.’”⁷ Further, Argentina argues that “the balance of the equities favors the Republic. Argentina ‘is not going anywhere’; Plaintiffs are entitled to post-judgment interest of 5.42% per year.”⁸

13. Counsel for Petersen and Eton Park (“Plaintiffs”) have asked me to opine with respect to the following questions:

- Whether Argentina has assets it can pledge as security to satisfy the bond requirement to appeal the \$16.1 billion judgment (“the Appeal Bond”);⁹
- Whether pledging these assets as collateral would risk a default on Argentina’s existing creditors;
- Whether there would be economic harm to Plaintiffs from waiting to enforce the judgment, and forgoing any bond, given that Plaintiffs are entitled to post-judgment interest of 5.42% per year; and
- Whether the proposed reforms by the soon-to-be president-elect candidates would be undermined in any way by pledging collateral for the Appeal Bond.

14. Based on my review of existing economic evidence, I reached the following conclusions:

- First, Argentina owns and operates “Fondo de Garantía de Sustentabilidad del Sistema Integrado Previsional Argentino” or FGS fund, which has assets valued at approximately \$27.8 billion.¹⁰ The FGS assets alone would be more than sufficient for Argentina to secure a bond for its appeal. However, in addition to the above, Argentina still has a number of other valuable assets that it could use as alternatives or as supplements to secure a bond:
 - Argentina owns a 51% equity stake in YPF S.A. (“YPF”), the value of which ranges between \$2.7 and \$3.05 billion;¹¹
 - Argentina has cash flows from and receivables it expects from various projects (for example, cash flows of Yacyretá binational power generator

⁷ Argentina’s Stay Motion, at 2.

⁸ Argentina’s Stay Motion, at 3.

⁹ The amount of the Appeal Bond would be larger than the \$16.1 billion judgment for two reasons: 1) accruing interest for time delay and 2) a “haircut” based on the type of assets being pledged as security for the Appeal Bond and the structure of the Appeal Bond. *See infra* **Section III**.

¹⁰ *See infra* **Section IV**.

¹¹ *See infra* **Section IV.A**.

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dam from Paraguay could be securitized, allowing for issuance of instruments worth approximately \$2 billion);¹²

- Argentina has current and expected cash flows it can monetize from currently untapped natural and other resources, such as offshore oil and gas reserves, and 5G spectrum; and
- Argentina's state-owned enterprises generate substantial revenue and would constitute further valuable assets, although it is challenging to value them, based on existing public information.
- Second, the assets available to Argentina to pledge as security for the Appeal Bond will not precipitate a default on the debts owed to any of its existing creditors, as these assets and their related cash flows do not form the primary basis for Argentina's servicing of its existing debts. That is especially true in light of the likely growth of the Argentine economy and its export base.
- Third, I find that there would be substantial economic harm to Plaintiffs stemming from time delay in enforcement of the judgment or the failure to post a bond. Plaintiffs are compensated at 5.42% per year post-judgment interest for the costs and risks they undertake based on being a forced unsecured creditor of Argentina. The current effective yields on dollar-denominated Argentina government debt range between 17.84% and 34.6%, depending on maturity, which is much higher than the 5.42% per year Plaintiffs stand to receive from waiting.
- Moreover, I find that the proposed reforms by the soon-to-be president-elect candidates would not be undermined by pledging collateral for the Appeal Bond.

I elaborate and explain these findings in the remainder of the declaration.

III. ECONOMIC MEANING OF POSTING COLLATERAL

15. As an initial matter, from an economic point of view, collateral is a valuable asset that a borrower pledges to secure the payments on a loan. Collateral plays the role of increasing the likelihood of repayment even though it typically is not liquidated in payment of the loan. Rather, the main effect of pledging of the collateral is to make it more likely that the borrower will choose to repay the loan from other resources (e.g., cash flows). An example of this would be a home-equity line of credit, where the collateral for the line of credit is the borrower's home, however the lender and the borrower do not expect that the borrower will sell the home in order

¹² See *infra* Section V.C.

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to pay off the home-equity line of credit. The expectation is that the borrower would be able to pay off the line of credit with other sources of funds, such as the borrower's salary or income from investments. The collateralization of the loan with the home, however, improves the likelihood of repayment. Similarly, in this case, the pledging of collateral (posting a bond) by the Argentine government improves the prospects for Argentina paying the judgment, but there is no expectation that Argentina will liquidate the proposed assets used as collateral, such as the assets from the FGS fund or its state-owned enterprises ("SOEs").

16. Second, the pledging of assets as collateral does not necessarily prohibit a change in the control of the assets during the period they serve as collateral. For example, if a SOE were pledged as collateral, this pledging could be done in a way that permits the asset to be privatized, so long as the cash proceeds from the sale of the assets are used as a substitute form of collateral for the privatized SOE. Thus, there is no reason that collateralization of SOEs would prevent privatization.

17. Third, depending on which assets are used for collateral the total amount of assets that has to be pledged as collateral for the Appeal Bond will differ. This is because the "haircut" (or discount) applied to assets used as collateral is a function of the volatility of the asset's price and the length of time until the payment of the debt being secured by the collateral. All else equal, the more volatile an asset's price is, and the longer the period before the debt payment is made, the larger the discount. For example, if the assets the Argentine government pledges require a 10% discount, then the total assets it would have to pledge as collateral for the Appeal Bond would have to be \$17.9 billion ($= \$16.1 \text{ billion} / (1 - 10\% \text{ discount})$). Thus, it would be reasonable from an economic perspective for Plaintiffs to demand Argentina to post

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collateral greater than the bond amount depending on structure and the types of assets that are being pledged.

18. Fourth, I do not estimate the ultimate amount of the haircut in this declaration, as it would depend on the structure and the type of the collateral and the estimated time until payment of the judgment.

19. Fifth, my conclusions do not consider the administrative and legal procedures, if any, required to monetize the estimated values of assets that can be used as collateral.

20. Sixth, the assets I describe below are assets that are either currently available to Argentina or other assets/cash flows it expects in the future. I do not opine on which particular asset or a combination of assets Argentina should use to structure the collateral for the Appeal Bond or whether these assets should be dollar- or peso-denominated. The choice of the assets would affect the haircut and thus the total amount of assets Argentina will have to post as collateral. With the above understanding in mind, below I describe these various potential assets that could be posted as a bond for the \$16.1 billion judgment.

IV. ARGENTINA'S FGS FUND

21. In November 2008, Argentina nationalized the private pension fund, which used to be a part of a defined contribution system of private pensions.¹³ The Argentina National Social Security Agency ("ANSES") manages the fund called FGS, which invests in various securities, including equity, corporate bonds, public securities, and trusts. FGS is the largest investment fund in Argentina.¹⁴ As of its last official statement in March 2023, the value of the FGS fund is

¹³ "OECD Review of the Corporate Governance of State-Owned Enterprises: Argentina," OECD, 2018, at 20.

¹⁴ "OECD Review of the Corporate Governance of State-Owned Enterprises: Argentina," OECD, 2018, at 20.

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estimated at \$27.8 billion.¹⁵ I am not aware of any legal impediment to Argentina's use of FGS securities to fund the Appeal Bond.

22. Indeed, using FGS assets to raise funds for government borrowings is not a novel concept for the Argentine government. For example, in 2009, Argentina's government made two direct sales of Treasury notes worth \$500 million to FGS.¹⁶ In 2011, Argentina borrowed \$631 million and \$926.1 million from ANSES by issuing additional Treasury notes to FGS.¹⁷ In 2012, Argentina continued to borrow from ANSES by selling \$341.6 million and \$114 million Treasury notes to FGS.¹⁸ Thus, there does not appear to be any impediment to the use of FGS assets to fund government liabilities.

23. Moreover, I understand that the FGS assets are only used as a contingent source of support in case ANSES does not have sufficient cash flows to fund its pension obligations.¹⁹ ANSES is funded by member contribution withholdings and employer contributions, as well as general income taxes, taxes with specific allocation, and contributions from the national budget.²⁰ The available 2022 ANSES statement shows that contributions exceeded the payouts by 479,520

¹⁵ See "Fondo de Garantía de Sustentabilidad del Sistema Integrado Previsional Argentino," Informe Estadístico Trimestral Primer trimestre 2023, at 5, reporting the total value of FGS as \$54.081 billion (using the official exchange rate of \$208.99 ARS/USD as of March 31, 2023). When I re-convert this amount using the "Contado con Liquidacion" or "CCL" exchange rate of 406.54 ARS/USD, the value of the FGS fund as of March 31, 2023 is \$27.8 billion.

¹⁶ "Argentina Borrows \$500 Million from State Agency," *Reuters*, September 30, 2009.

¹⁷ "Argentina Borrows \$631M From Social Security Agency Anses," *Dow Jones*, January 27, 2011; "Argentina Borrows \$926.1 Million From Pension Fund Agency," *Dow Jones*, February 10, 2011.

¹⁸ "Argentina To Borrow \$341.6 Million from Pension Agency," *Dow Jones*, April 27, 2012; "Argentina Borrows \$114 Million From Social Security Fund," *Dow Jones*, June 18, 2012.

¹⁹ SWF, <https://globalswf.com/fund/FGS>, stating ("It is used as a supplement of the funds for National Social Security Administration (ANSES) when there is no enough capital to pay out pensions.") (last accessed October 25, 2023).

²⁰ "Argentina: Sources of Funds," International Social Security Association, available at <https://www.issa.int/node/195545?country=793> (last accessed October 25, 2023).

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million pesos.²¹ The fact that contributions exceed payouts reduces the likelihood that FGS assets would have to be tapped to support the pension system.

24. In addition, because Argentina's payments on its social security are made over time and FGS assets would only be used in the event ANSES has a funding shortfall, it would be possible for the Argentine government to use other revenues or assets to support any temporary cash flow shortfall in its pension system, if the FGS assets were posted as collateral for the Appeal Bond. These funds could be used in the event of an ANSES shortfall. Therefore, even if FGS assets are used, the beneficiaries of ANSES would likely not be adversely affected if FGS assets were used to secure the required bond for the Argentine government's appeal.

25. Furthermore, Argentina's existing bonds and other creditors will not be harmed as a result of pledging the assets of the FGS fund because posting a bond with those assets would not require Argentina to issue new debt instruments that might reduce the value of existing debt.

V. OTHER ASSETS ARGENTINA COULD USE TO SECURE A BOND

26. As shown above, the FGS assets alone would be more than sufficient for Argentina to secure the Appeal Bond, even if a substantial collateral "haircut" were applied to those assets. However, in addition to the FGS assets, Argentina still has a number of other valuable assets that it could use as alternatives or as supplements to the FGS assets to secure a bond. I discuss these below.

²¹ ANSES Financial Statements 2018-2022, available at <https://www.anses.gob.ar/estado-financiero> (last accessed October 27, 2023).

CONFIDENTIAL**A. Argentina's Equity Stake in YPF**

27. Argentina has a 51% equity stake in YPF, which is worth \$2.35 billion based on a market capitalization of \$4.7 billion as of October 23, 2023.^{22,23}

28. The above valuation is based on the trading price for YPF on the NYSE. Such a trading price reflects the value of a minority interest in YPF. Argentina's 51% reflects a controlling stake in YPF. The academic literature shows that controlling stakes could have a higher value than minority stakes in the same company. Based on the academic literature, the median and mean control premium for firms in Argentina is 12% and 27%, respectively.²⁴ Applying the median and mean control premium to the Argentine government's stake in YPF results in a value of \$2.70 and \$3.05 billion, respectively.

B. Receivables from Other Countries

29. The Paraguayan government owes Argentina for the construction of the Yacyretá binational power generator dam. In May 2017, the Governments of Argentina and Paraguay reached an agreement to settle a debt worth several billion dollars. Specifically, Paraguay committed to making payments to Argentina of \$4 billion over a span of 30 years.²⁵ Paraguayan

²² S&P Capital IQ.

²³ YPF, S.A. 2022 Form 20-F, at 6, stating that Argentina owns 51% shares of YPF S.A, available at <https://www.ypf.com/english/investors/Lists/InformeAnualForm20/YPF%20Form%2020F%202022.pdf> (last accessed October 23, 2023).

²⁴ Dyck, A. and Zingales, L., "Private Benefits of Control: An International Comparison," *The Journal of Finance*, Vol. LIX, No.2, April 2004, 537-600, at 551.

²⁵ "Los presidentes Macri y Cartes firmaron un acuerdo por Yacyretá," Press release from the Office of Casa Rosada, May 4, 2017, available at <https://www.casarosada.gob.ar/slider-principal/39457-los-presidentes-macri-y-cartes-firmaron-un-acuerdo-por-el-ente-binacional-yacreta> (last accessed November 2, 2023).

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Congress has already approved these payments.²⁶ These payments could be securitized.

According to Latam Advisors, such a securitization would generate roughly \$2 billion today.²⁷

C. Natural and Other Resources

30. Another source of assets that Argentina could use are cash flows it expects to generate from currently untapped natural and other resources it owns. Argentina is one of the largest economies in Latin America and is a resource-rich country with an enormous potential for further development.²⁸

31. First, Argentina can generate significant cash flows from royalties and taxes from offshore oil and gas developments in the country. Argentina has a large offshore oil and gas field of about 500,000 km² that is yet to be developed.²⁹ “The current offshore exploration concessions in Argentina’s Northern Basin ... correspond to Round No. 1 of an international bidding process to develop oil and gas production in deep water under the jurisdiction of the national government. ... The exploration project has been presented by the state-controlled company YPF, jointly with Shell and the Norwegian company Equinor. Among the companies that were

²⁶ Law No. 6135 of the Republic of Paraguay (approving the agreement between Argentina and Paraguay), available at <https://www.bacn.gov.py/archivos/8397/ley+61352018.pdf> (last accessed October 31, 2023).

²⁷ “YPF Expropriation Case: The Payment,” Latam Advisors, September 2023, at 4

²⁸ Argentina has the second largest shale gas and fourth-largest shale oil reserves in the world, as well as the third-largest proven lithium reserves in the world and is expected to become a leading exporter of lithium over the next decade. *See* “Market overview, Argentina – Country Commercial Guide,” U.S. Department of Commerce, International Trade Administration, available at <https://www.trade.gov/country-commercial-guides/argentina-market-overview> (last accessed October 23, 2023).

²⁹ “Brief Market Report: The Oil & Gas section in Argentina,” Ministry of Foreign Affairs, Commissioned by the Netherlands Enterprise Agency, June 2022, available at <https://www.rvo.nl/sites/default/files/2022-06/Brief%20Market%20Report%20-%20The%20market%20for%20oil%20and%20gas%20services%20in%20Argentina%20JUNE2022.pdf> (last accessed October 25, 2023), at 2.

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awarded exploration areas are, besides YPF and Equinor, the following: Tecpetrol, Pluspetrol, Total Austral, BP Exploration, Shell, Qatar Petroleum, ExxonMobil, Wintershall, Tullow Oil, Mitsui and Eni. According to industry data, the development of **this offshore block alone can generate public revenue (royalties plus taxes) of USD32.9 billion.**”³⁰ (emphasis added).

32. Moreover, Argentina recently completed the auction of the fifth generation frequency bands (5G) in a bidding process, where three companies (Claro, Telecom, and Telefonica) won, resulting in Argentina collecting more than \$875 million.³¹ In 2021, ENACOM (the National Communications Agency of Argentina) identified the frequencies “that are suitable for the implementation” of the 5G network.³² Such frequencies are the following:

1. Frequency 1500 MHz: 1427 – 1518 MHz
2. Frequency AWS-3: 1770 – 1780 MHz / 2170 – 2200 MHz
3. Frequency 2300 MHz: 2300 – 2400 MHz
4. Frequency 3500 MHz: 3300 – 3600 MHz
5. Frequency 26 GHz: 24,25 – 25,75 GHz
6. Frequency 38 GHz: 37 – 43,5 GHz

The \$875 million received thus far was for a concession to operate for a 20-year period using 250 MHz of the 300 MHz contained in the 3300 - 3600 MHz frequencies. Thus, there remains a 50 MHz block vacant in 3300-3600 MHz frequencies, as well as the other five frequency ranges

³⁰ *Id.*, at 6-7.

³¹ “El Estado argentino licitó la banda 5G por más de 875 millones de dólares,” ENACOM, October 24, 2023, available at https://www.enacom.gob.ar/institucional/el-estado-argentino-licito-la-banda-5g-por-mas-de-875-millones-de-dolares_n4578 (last accessed October 27, 2023).

³² “Garantizando el acceso a internet como derecho humano básico,” ENACOM, December 23, 2021, available at https://enacom.gob.ar/institucional/garantizando-el-acceso-a-internet-como-derecho-humano-basico_n3575 (last accessed October 31, 2023); “Redes 5G: la Argentina ya definió que frecuencias usará para la nueva red de internet móvil,” La Nación, December 24, 2021, available at <https://www.lanacion.com.ar/tecnologia/redes-5g-la-argentina-ya-definio-que-frecuencias-usara-para-la-nueva-red-de-internet-movil-nid24122021/> (last accessed October 31, 2023).

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listed above. Those could be auctioned to private sector users to provide additional proceeds to Argentina.

D. State-Owned Enterprises

33. Argentina owns numerous state-owned enterprises (“SOEs”). *See Exhibit A.* However, the value of the Argentinean SOEs is challenging to quantify because of the lack of up-to-date publicly available financial information. For example, I was only able to find revenue and/or book value of equity information as of year-end 2022 for 22 of the 42 SOEs. *See Appendix A.* Moreover, there are also other valuation issues that make it challenging to obtain a precise value for the Argentinean SOEs as of today. For example, of the 22 SOEs discussed above, I was only able to find publicly-traded Argentine firms in the same sector for six SOEs. Based on median sector price-to-revenue and price-to-book value of equity ratios of the comparable companies (i.e., publicly traded Argentine companies operating in the same sector as the SOEs) and the six SOEs revenues and book value of equity, I estimate the combined market value of equity of these six SOEs as ranging from \$2.0 billion to \$3.3 billion, as of December 31, 2022.³³ Given that these are only six of the 42 SOEs, representing only 32% of total SOEs revenues and 21% of total SOEs book value of equity based on the latest annual financial statements available for the companies listed in **Exhibit A**, this indicates that the total value of Argentina’s SOEs is likely substantially higher.

³³ The values are converted into USD using the CCL exchange rate as of December 30, 2022 of \$344.13 ARS/USD.

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Exhibit A
List of State-Owned Enterprises

| Enterprise | Sector |
|--|-------------------------------|
| 1 Banco de Inversión y Comercio Exterior S.A. - BICE | Financial Services |
| 2 Corredores Viales S.A. | Transportation Infrastructure |
| 3 Energía Argentina S.A (ENARSA) (2022) | Oil & Gas |
| 4 IMPSA | Energy & Electric Utilities |
| 5 Innovaciones Tecnologicas Agropecuarias S.A. | Agriculture |
| 6 Operadora Ferroviaria S.E. (SOFSE) | Transportation Infrastructure |
| 7 Administración de Infraestructuras Ferroviarias S.E. | Transportation Infrastructure |
| 8 Administracion General del Puertos S.E. | Water Transport |
| 9 Aerolíneas Argentinas S.A. | Air Transport |
| 10 Agua y Saneamientos Argentinos | Water Utilities / Sewage |
| 11 ALTEC S.E. | Technology |
| 12 ARSAT | Communication Services |
| 13 Banco de la Nación Argentina | Banking |
| 14 Compañía Administradora del Mercado Mayorista Eléctrico S.A. (CAMMESA) | Energy & Electric Utilities |
| 15 Construcción de Viviendas para la Armada E.E (COVIARA) | Real Estate |
| 16 Contenidos Públicos Sociedad del Estado | Broadcasting |
| 17 Corp. Interestadual Pulmarí | Defense |
| 18 Corporación Antiguo Puerto Madero S.A. | Real Estate |
| 19 Corporación del Mercado Central | Commercial |
| 20 Correo Oficial de la República Argentina | Postal Services |
| 21 Dioxitek S.A. | Chemicals |
| 22 EDUC.AR S.E. | Education |
| 23 Empresa Argentina de Navegación Aérea S.E. | Transportation Infrastructure |
| 24 Energía Argentina S.A (ENARSA) (2018) | Oil & Gas |
| 25 Fábrica Argentina de Aviones “Brig. San Martín” S.A. (FAdeA) | Aerospatial Manufacturing |
| 26 Fabricaciones Militares Sociedad del Estado | Military Manufacturing |
| 27 Intercargo S.A.C. | Transportation Infrastructure |
| 28 INVAP S.E. | Technology |
| 29 LT10 Radio Universidad Nacional del Litoral S.A. | Broadcasting |
| 30 Nucleoeléctrica Argentina S.A. | Energy & Electric Utilities |
| 31 Playas Ferroviarias de Buenos Aires S.A. | Transportation Infrastructure |
| 32 Polo Tecnológico Constituyentes S.A. | Technology |
| 33 Radio y Television Argentina S.E. | Broadcasting |
| 34 S.E. Casa de Moneda | Financial Services |
| 35 Servicio de Radio y Televisión de la Universidad Nacional de Córdoba S.A. | Broadcasting |
| 36 Servicio Geológico Minero Argentino | Industrials |
| 37 Talleres Navales Dársena Norte S.A. TANDANOR S.A.C.I.y N. | Naval Manufacturing |
| 38 TELAM SE | News |
| 39 Vehículo Espacial Nueva Generación S.A. (VENG) | Technology |
| 40 Yacimiento Carbonifero Rio Turbio (YCRT) | Energy & Electric Utilities |
| 41 Yacimientos Mineros de Agua de Dionisio (YMAD) | Energy & Electric Utilities |
| 42 YPF S.A. | Oil & Gas |

Sources: Companies' websites, S&P Capital IQ, and “OECD Review of the Corporate Governance of State-Owned Enterprises: Argentina,” OECD, 2018, at 39-41 and 113-114.

34. Many of these SOEs enjoy monopoly privileges which may further enhance their values. For example, according to Fitch Ratings, the operations of the water and sewer company

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Agua y Saneamientos Argentinos S.A. (AYSA) are “regulated and present a monopoly condition in water/wastewater services in the state of Buenos Aires, which places high entry barriers.”³⁴

Thus, these SOEs have consistent and reliable cash flows, and are protected from competition, which are attractive cash flow characteristics to investors. Accordingly, Argentina could monetize such cash flows through securitization and, thus, the value of the SOEs could be unlocked today without having to privatize the SOEs.

35. The above facts show that Argentina has more than sufficient assets it can pledge to satisfy the bond requirement for the appeal. Moreover, similarly to the assets of the FGS fund, Argentina’s existing bonds and other creditors will not be harmed as a result of pledging the above described assets because posting a bond with those assets would not require Argentina to issue new debt instruments that might reduce the value of existing debt.

VI. PLAINTIFFS ARE ECONOMICALLY HARMED BY WAITING

36. Argentina argues that there is no harm to the Plaintiffs in waiting indefinitely for Argentina to start paying the judgment, as Plaintiffs are “entitled to post-judgment interest at 5.42% per year.”³⁵ From an economic perspective, that could be true if the return that Plaintiffs would receive is commensurate with the risk. However, that is not the case here. The current effective yields to maturity on *secured* dollar-denominated Argentine government debt ranges between 17.84% and 26.7%, depending on maturity.³⁶ An *unsecured* bond issued by Argentina

³⁴ “Fitch Affirms AySA’s IDRs at ‘CCC’,” Fitch Ratings, November 20, 2020, <https://www.fitchratings.com/research/corporate-finance/fitch-affirms-aysa-idrs-at-ccc-20-11-2020> (last accessed October 25, 2023).

³⁵ Argentina’s Stay Motion, at 3.

³⁶ Government bonds are often issued with a sinking fund feature. A sinkable bond is secured by a reserve established by the issuer. See <https://cbonds.com/glossary/sinkable-bond/> (last accessed October 27, 2023).

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has a yield-to-maturity of 34.6%. By comparison, Plaintiffs are only receiving interest of 5.42% per year, which is less than 1/3 of even the low-end yield of 17.8% per year that *secured* creditors of Argentina are receiving. *See Exhibit B.* One can illustrate how costly it could be for Plaintiffs to be forced to wait for a year, as an example, receiving only interest at 5.42% per year. Given that the yield to maturity on current Argentine bonds ranges between 17.84% and 34.60%, the difference in yields compared to the 5.42% post-judgment interest rate ranges between 12.42% and 29.18%. Assuming hypothetically that the Appeal Bond is in the amount of \$16.1 billion (that is, before adjusting for any additional costs related to administrative or legal procedures, or haircuts applied to the assets used as collateral), the cost of a one year delay in payment to Plaintiffs implies an amount ranging from \$2.0 billion to \$4.7 billion.³⁷ Thus, Argentina ignores that there are substantial economic costs and risks Plaintiffs would bear from being forced to become its unsecured creditors.

Exhibit B
Yields on Argentina's USD Government Bonds

| Ticker | Coupon | Maturity | Maturity Type | Currency | CUSIP | Yield to Maturity |
|---------------|---------------|-----------------|----------------------|-----------------|--------------|--------------------------|
| ARGENT | 0.75 | 7/9/2030 | CALL/SINK | USD | 040114HS2 | 22.23 |
| ARGENT | 8.28 | 12/31/2033 | SINKABLE | USD | EI2400451 | 18.96 |
| ARGENT | 8.28 | 12/31/2033 | SINKABLE | USD | ED7860627 | 17.84 |
| ARGENT | 5.875 | 1/11/2028 | AT MATURITY | USD | 040114HQ6 | 34.60 |
| ARGENT | 1 | 7/9/2029 | CALL/SINK | USD | 040114HX1 | 26.66 |

Source: Bloomberg, L.P.

VII. THE PROPOSED ECONOMIC REFORMS IN ARGENTINA WOULD NOT BE UNDERMINED BY PLEDGING COLLATERAL FOR THE APPEAL BOND

37. In this Section, I explain that the proposed reforms by the soon-to-be president-elect candidates would not be undermined by pledging collateral for the Appeal Bond.

³⁷ \$2.0B = \$16.1B x (17.84% - 5.42%) and \$4.7B = \$16.1B x (34.60% - 5.42%).

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38. Argentina's October 22, 2023 first-round presidential elections resulted in two remaining candidates, Sergio Massa (Unión por la Patria -36.7%) and Javier Milei (La Libertad Avanza -30%), who will advance to the run-off, which will be held on November 19, 2023.³⁸ The first run-off poll suggested that Mr. Milei will be a winner by a narrow majority: 50.7% vs. 49.3%.³⁹ Subsequent polls have suggested that Mr. Massa is now favored to win.⁴⁰ Given the tightness of the race, it is hard to forecast which candidate will win. Nevertheless, the plans and statements of both candidates are consistent with the view that Argentina seeks to improve its economic prospects and access to U.S. dollar funds from its current economic position.

39. If Mr. Milei wins, he proposes economic reforms that include drastic cuts in government spending, privatization of public companies, increased private investment, a promise of no default on Argentina's debt to the IMF, and dollarization of the Republic's economy.⁴¹ If Mr. Massa wins, he proposes to control the foreign exchange ("FX") market with administration of FX reserves, promote exports and expand export destinations, target primary surplus equilibrium in 2024, in particular by reducing tax credits, and increase public infrastructure spending to expand the export basket and reduce imports.⁴² Mr. Massa projects a primary surplus of 1% in 2024, positive GDP growth and an increase of more than \$31 billion in foreign sales.⁴³

³⁸ "Explainer-Argentina presidential elections: Key takeaways from first-round vote," *Reuters News*, October 23, 2023.

³⁹ "What does the first poll say about the runoff between Javier Milei and Sergio Massa in Argentina?" *CE Noticias Financieras*, October 25, 2023.

⁴⁰ See, e.g., "New poll for the runoff: how is the flight between Sergio Massa and Javier Milei?" *CE Noticias Financieras*, October 31, 2023.

⁴¹ "What does the rise of Javier Milei mean for Argentina?" GIS Reports, available at <https://www.gisreportsonline.com/r/argentina-javier-milei/> (last accessed November 2, 2023).

⁴² "Argentina elections: Impact of potential outcomes and policy proposals," HSBC, August 28, 2023, at 4.

⁴³ "Massa announced a new dollar differential for all exports for 30 days," *CE Noticias Financieras*, October 24, 2023.

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None of these reforms would be undermined by the pledging of assets related to the judgment. I reiterate that the privatization of SOEs would not be affected by the pledging of those assets, so long as the pledging agreement makes it clear that proceeds from the sale of the assets could be used as a substitute collateral if they were privatized.

40. It is also noteworthy that both candidates are expressing optimism about Argentina's future and its fiscal affairs. Their optimism reflects prospective policy changes that should improve access to U.S. dollar funds, not just political rhetoric. Mr. Massa's optimism in the weeks leading up to the election was reflected in his willingness to "[hand] out a bonus for pensioners in pesos worth \$100 (at the official exchange rate), and [eliminate] income tax for 99% of all workers. Such measures are estimated to have cost the equivalent of around 1% of GDP."⁴⁴ This initiative indicates that Mr. Massa thinks that Argentina can afford a potential increase in its current budget deficit. Said differently, eliminating this new fiscal program alone would provide Argentina with \$2.4 billion in additional debt capacity.⁴⁵

41. Mr. Milei is targeting as much as 15% of GDP in spending reductions, if he is elected.⁴⁶ This means that every dollar of spending that is cut increases Argentina's debt service capacity. At the end of 2022, Argentina's GDP was \$238.3 billion in "Contado con Liquidacion" or "CCL dollar" terms.⁴⁷ 15% of that amount (or \$35.7 billion) would be available dollar-for-dollar to increase Argentina's debt capacity.

⁴⁴ "The enduring power of Peronism," *The Economist*, October 28, 2023.

⁴⁵ Argentina's 2022 GDP was \$238.3 billion in "CCL dollar" terms. Per INDEC, Argentina's 2022 GDP expressed in current pesos was \$82,436,434 million. Converted to USD using the CCL exchange rate as of December 31, 2022 of \$346 ARS/USD available at <https://www.ambito.com/contenidos/dolar-informal-historico.html> (last accessed October 10, 2023).

⁴⁶ "Argentina: Turbulence ahead, new inflation and GDP forecasts," HSBC, September 14, 2023, at 4.

⁴⁷ Per INDEC, Argentina's 2022 GDP expressed in current pesos was \$82,436,434 million. Converted to USD using the CCL exchange rate as of December 31, 2022 of \$346 ARS/USD available at <https://www.ambito.com/contenidos/dolar-informal-historico.html> (last accessed October 10, 2023).

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42. Both candidates are committed to promoting and expanding exports, which is another source of accessing U.S. Dollar funds. Currently, Mr. Massa's government is already implementing export reforms that are going to be beneficial in terms of increasing U.S. Dollar funds. According to Mr. Massa, "the economic team is moving forward with the implementation of more differential export regimes in an attempt to increase dollars to the reserves without devaluating before the elections. Thus, after announcing special programs for SMEs, oil companies and agriculture, Massa [the current Minister of Economy] said ... that he would extend the plan to the automotive, mining and fishing sectors."⁴⁸ On October 24, 2023, Mr. Massa in fact announced the implementation of a differential dollar, i.e., different from the official exchange rate, for the entire exporting complex, which will be in force for the next 30 days.⁴⁹ He specified that the entire Argentine export complex will have "for the next 30 days a settlement regime of 70% entered through what is called the single and free exchange market (MULC) and 30% through what is called the financial dollar system or cash with settlement.... In this way, exporters end up receiving a larger amount of pesos than they would get if they had to liquidate 100% of their exports at the official retail exchange rate, which is around [ARS]367 per dollar."⁵⁰

43. The strategy of increasing exports is expected to continue after the elections. For example, currently analysts are predicting that "net primary exports should improve significantly in 2024, helping with the stabilization of the economy."⁵¹ They expect "a USD15bn

⁴⁸ "Blue dollar overheats before the elections: uncertainty for savers and economists' criticism of Milei," *CE NoticiasFinancieras*, October 10, 2023.

⁴⁹ "Massa announced a new dollar differential for all exports for 30 days," *CE NoticiasFinancieras*, October 24, 2023.

⁵⁰ "Massa announced a new dollar differential for all exports for 30 days," *CE NoticiasFinancieras*, October 24, 2023.

⁵¹ "Argentina: Turbulence ahead, new inflation and GDP forecasts," HSBC, September 14, 2023, at 5.

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improvement in the agricultural sector, thanks to the end of La Niña, USD4bn increase in the energy sector thanks to the use of domestic natural gas with the new pipeline and exports to neighboring countries, and USD2bn of additional mining exports from lithium and metal projects.”⁵² There are also opportunities in mining and large lithium reserves that “could produce up to \$5bn of exports in the medium term.”⁵³ Moreover, Vaca Muerta is a highly valuable asset, which is considered to be one of the most abundant unconventional oil and gas resources in the world. According to analysts, it has “significantly improved in terms of costs and productivity” over the past decade and has become one of the most promising “oil and gas plays around the world.”⁵⁴ Analysts view it as a “unique platform for the country to use its resources now and increase exports. From the oil perspective, increasing exports will likely increase the country’s dollar-linked revenues.”⁵⁵

44. If Mr. Milei wins, he also proposes to dollarize Argentina’s economy. Mr. Milei’s dollarization proposal includes “three parts: i) a dollarization of ARS deposits under the FX conversion rate, as well as bank’s assets and contracts in general, under a rate adjustment (desagio); ii) a dollarization of the monetary base; iii) a dollarization of Leliqs, for which BCRA’s assets are moved into an SPV called FEM, enhanced with additional resources, that would issue asset-backed commercial paper (ABCP) in exchange for Leliqs.”⁵⁶ To achieve this,

⁵² “Argentina: Turbulence ahead, new inflation and GDP forecasts,” HSBC, September 14, 2023, at 5.

⁵³ “YPF SA, Above-ground concerns could keep Vaca Muertas vast potential buried,” BofA Securities, October 10, 2023, at 16.

⁵⁴ “YPF SA, Above-ground concerns could keep Vaca Muertas vast potential buried,” BofA Securities, October 10, 2023, at 4.

⁵⁵ “YPF SA, Above-ground concerns could keep Vaca Muertas vast potential buried,” BofA Securities, October 10, 2023, at 13.

⁵⁶ “Topics of the Day: Juntos wins in Mendoza, Ocampo potential BCRA governor,” BTG Pactual, September 25, 2023, at 2.

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Mr. Milei can draw upon private external funding giving public sector assets as a collateral.⁵⁷ Market participants expect the proposed dollarization will cost \$30 billion, take 9-24 months and have an immediate effect on real Argentine purchasing power.⁵⁸ Some analysts are concerned that Argentina's terms of trade (the amount of dollars that an hour of Argentine labor can command) may decline as the result of eliminating the artificial effects of current exchange controls. However, any negative effects on the terms of trade of the policy reforms likely will be reversed over time, as has happened in the past. *See infra* **Section VII.A**. Moreover, the elimination of controls means that there is no physical limit to paying dollars in the future. The Milei team are counting on Argentines themselves to provide the needed dollar inflows. After all, the country's private sector is a major net external creditor, with FX assets of "over USD325bn in liquid and financial assets."⁵⁹ Mr. Milei is also working on finding ways to shore-up FX by proposing a tax-amnesty for FX assets held by individuals as an incentive to increase FX supply.⁶⁰ Additionally, it would be possible to use foreign-based dollar reserves to support some blockchain-based payments in dollars, which would eliminate concerns about expropriation risk that might limit the willingness to bring dollars into Argentina. Analysts state that the dollarization is expected to "generate a confidence boost that would raise the value of sovereign bonds, thus containing the required devaluation of the currency to make it feasible."⁶¹

⁵⁷ "Argentina: Turbulence ahead, new inflation and GDP forecasts," HSBC, September 14, 2023, at 4.

⁵⁸ *See, e.g.*, "Topics of the Day: Juntos wins in Mendoza, Ocampo potential BCRA governor," BTG Pactual, September 25, 2023, at 2.

⁵⁹ "Argentina elections: Impact of potential outcomes and policy proposals," HSBC, August 28, 2023, at 8.

⁶⁰ "Argentina: Turbulence ahead, new inflation and GDP forecasts," HSBC, September 14, 2023, at 5.

⁶¹ "Argentina elections: Impact of potential outcomes and policy proposals," HSBC, August 28, 2023, at 8.

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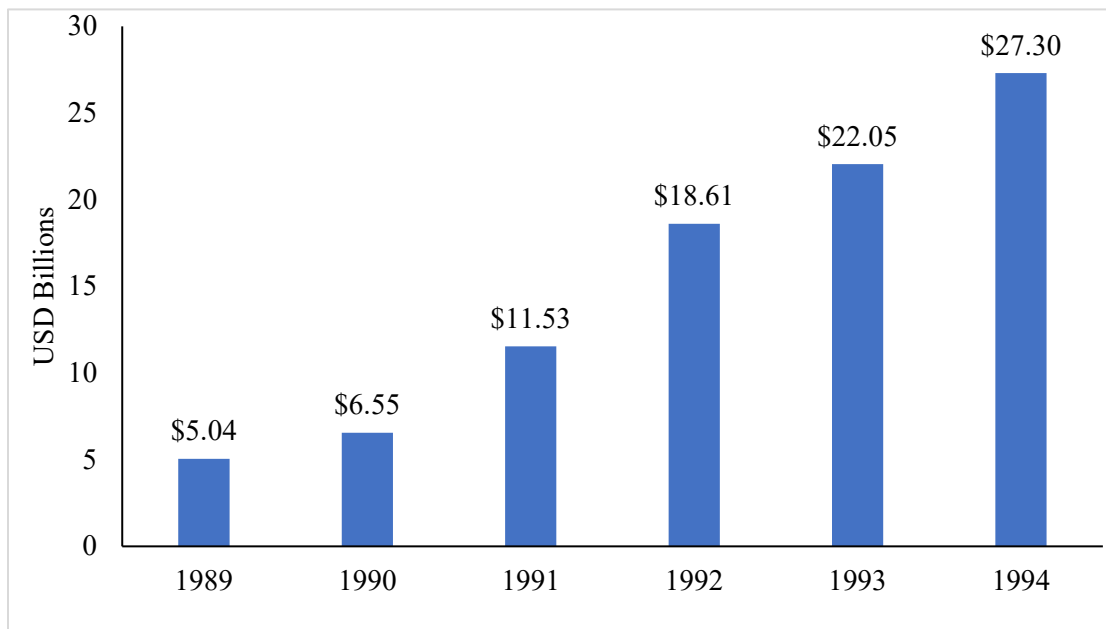
45. The types of structural economic reforms proposed by Mr. Milei and Mr. Massa have been implemented in Argentina in the past. Specifically, Argentina instituted similar reforms in the early 1990s after Argentina experienced severe economic and financial difficulties in the 1980s. The reforms of the 1990s included a one-to-one currency board peg to the U.S. Dollar, liberalization of trade and the capital account, and public sector reforms, such as privatization of state-owned assets. There was a sudden improvement in the four years immediately after the elections which was reflected in: substantial new capacity to issue international debt, substantial growth in GDP, increased productivity, and a boom in exports and imports. *See Exhibits C through E. Exhibit C* shows that Argentina's imports increased from \$5.04 billion in 1989 to \$27.3 billion in 1994 – a 441.7% increase. Argentina's exports increased from \$10.01 billion in 1989 to \$24.98 billion in 1995 – a 149.6% increase (*See Exhibit D*). Argentina's GDP increased from \$453.5 billion in 1989 to \$613.2 billion in 1994 – a 35.2% increase.⁶² (*See Exhibit E*). Moreover, Argentina was able to issue \$7 billion in new government bonds between 1990 and 1993.⁶³

⁶² Calculated as “Real GDP at Constant National Prices” using 2017 USD as the base. *See* <https://fred.stlouisfed.org> (last accessed November 2, 2023).

⁶³ “Argentina’s foreign debt grew to \$68 billion in 1993,” *UPI*, January 13, 1994, available at <https://www.upi.com/Archives/1994/01/13/Argentinas-foreign-debt-grew-to-68-billion-in-1993/4475758437200/> (last accessed October 25, 2023).

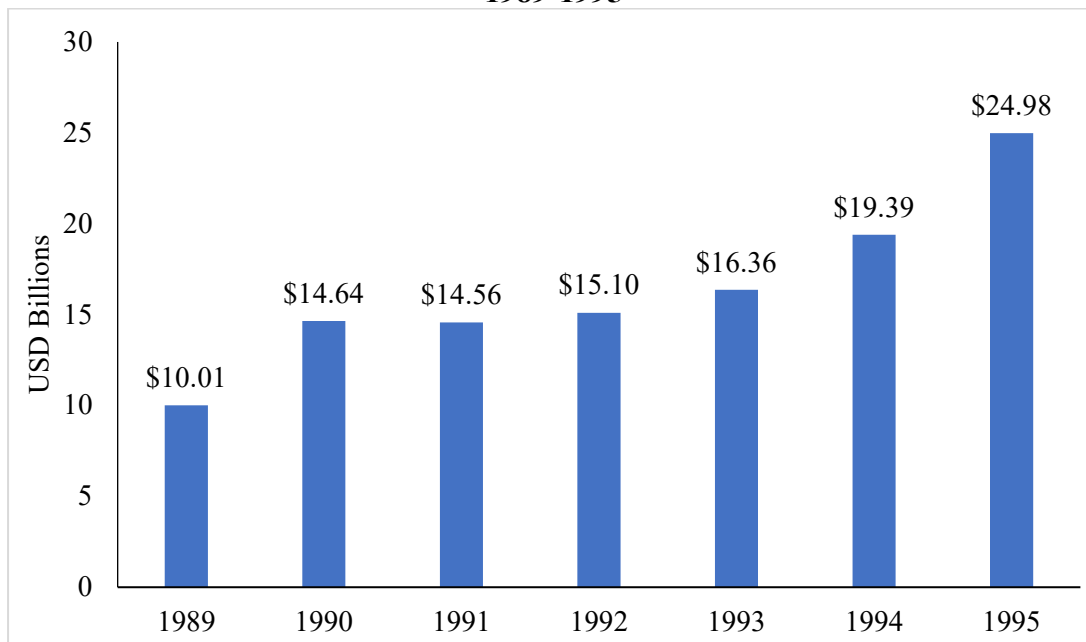
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Exhibit C
Argentina Imports
1989-1994



Source: Macrotrends (WorldBank).

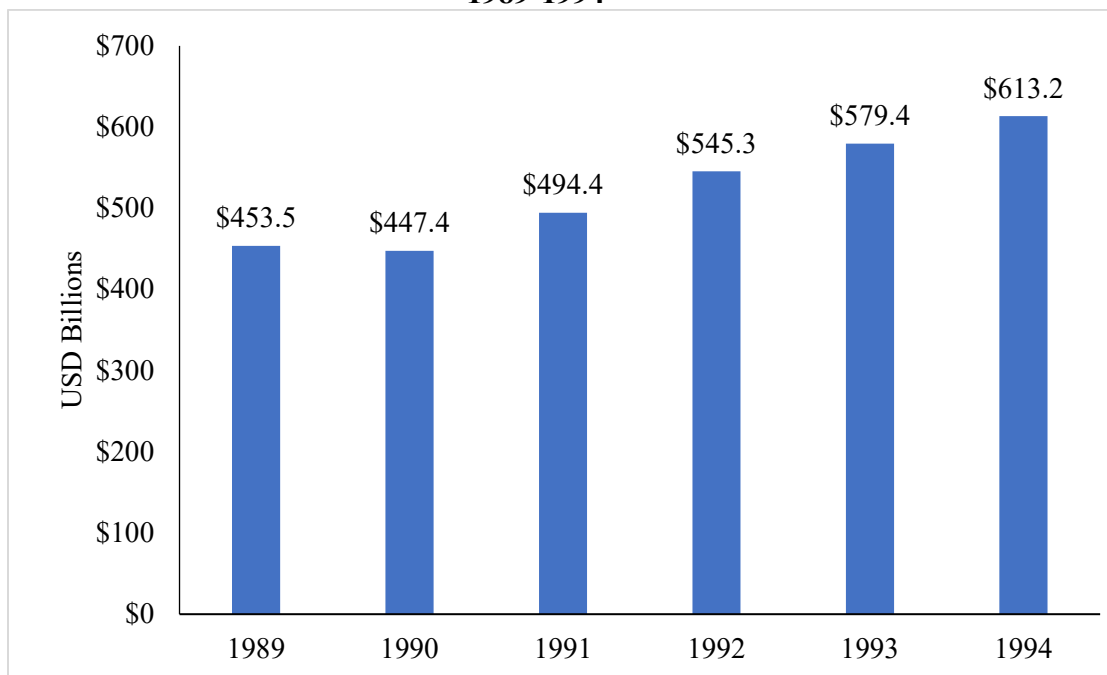
Exhibit D
Argentina Exports
1989-1995



Source: Macrotrends (WorldBank).

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Exhibit E
Argentina Real GDP
1989-1994



Source: Federal Reserve Bank of St. Louis.

46. These dramatic improvements were sustained even through the trying global macroeconomic environment of 1995 to 1999. As the former Governor of the Central Bank of Argentina, Pedro Pou, commented: “The reforms of the 1990s were extremely successful in bringing the economy back to a sustained growth path. GDP growth averaged 4.7 percent in 1991-99 notwithstanding two recessions. During 1992-99, the value of exports increased by 8.2 percent a year on average, and the volume by 9.4 percent a year, while employment increased by 12 percent.”⁶⁴

47. These data support the view that the proposed reforms will not be undermined by posting collateral for the Appeal Bond. That is especially so if labor productivity and GDP rise

⁶⁴ “Argentina’s Structural Reforms of the 1990s,” International Monetary Fund, available at <https://www.imf.org/external/pubs/ft/fandd/2000/03/pou.htm> (last accessed November 1, 2023).

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substantially as the result of the new policies. Those prospects support the view that using government assets as collateral pending the payment of the judgment is unlikely to have any significant adverse long-term effect on the likelihood that pensioners' will receive their benefits, or on the government's capacity to pay other creditors.

A handwritten signature in black ink, appearing to read "C. Calomiris", is positioned above a horizontal line.

Charles W. Calomiris
November 2, 2023

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Appendix A
Indicative Value of Select State-Owned Enterprises
\$ in Millions

| Enterprise [A] | Sector [B] | Argentina Ownership [C] | As of Date [D] | Sales [E] | Sector Median P/Sales Multiple [F] | Book Value of Equity [G] | Sector Median P/BV Multiple [H] | Equity Value to Argentina Based on: | |
|--|-------------------------------|-------------------------------|----------------------|--------------|--|--------------------------------|---------------------------------------|-------------------------------------|-------------------------------|
| | | | | | | | | P/Sales [I] = [E] x [F] x [C] | P/BV [J] = [G] x [H] x [C] |
| Banco de Inversión y Comercio Exterior S.A. - BICE | Financial Services | 100.00% | 12/31/22 | \$136.54 | 10.18x | \$184.35 | 3.28x | \$1,390.00 | \$604.10 |
| Corredores Viales S.A. | Transportation Infrastructure | 100.00% | 12/31/22 | \$56.70 | 2.55x | \$61.03 | 1.37x | \$144.69 | \$83.78 |
| Energía Argentina S.A (ENARSA) (2022) | Oil & Gas | 100.00% | 12/31/22 | \$700.36 | 2.40x | N/A | N/A | \$1,680.75 | N/A |
| IMPSA | Energy & Electric Utilities | 63.70% | 12/31/22 | \$12.68 | 2.12x | \$30.29 | 1.20x | \$17.09 | \$23.15 |
| Innovaciones Tecnologicas Agropecuarias S.A. | Agriculture | 97.50% | 12/31/22 | \$0.65 | 0.99x | \$4.59 | 1.40x | \$0.63 | \$6.28 |
| Operadora Ferroviaria S.E. (SOFSE) | Transportation Infrastructure | 100.00% | 12/31/22 | \$12.53 | 2.55x | \$931.49 | 1.37x | \$31.98 | \$1,278.84 |
| Total | | | | | | | | \$3,265.13 | \$1,996.15 |

Latest Available Annual Sales and Book Value of Equity for:

| | | |
|--|------------|------------|
| Other SOEs ^[K] : | \$1,978.26 | \$4,490.68 |
| All SOEs | \$2,897.73 | \$5,702.43 |
| Other SOEs as % of All SOEs^[K] | 68% | 79% |

Notes & Sources:

[A]: Excludes YPF S.A.

[B]: Per companies' websites, S&P Capital IQ, and "OECD Review of the Corporate Governance of State-Owned Enterprises: Argentina," OECD, 2018, at 39-41 and 113-114.

[C]: Direct and indirect ownership of the Republic of Argentina per companies' websites, S&P Capital IQ, and "OECD Review of the Corporate Governance of State-Owned Enterprises: Argentina," OECD, 2018, at 39-41 and 113-

[D]: Date of latest annual financial statements available.

[E], [G]: per companies' financial statements and <https://www.economia.gob.ar/onp/empresas/2022> converted to USD using the CCL exchange rate as of the As of Date (column [D]) available at <https://www.rava.com/perfil/DOLAR%20CCL>.

[F], [H]: per S&P Capital IQ for Argentina publicly traded companies with primary operations in the sector.

[K]: Companies with outdated or insufficient financial data available, or operating in a sector with no Argentinean publicly traded companies.